

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A poxviral particle having a targeted infection specificity towards target cells wherein said poxviral particle infects said target cells and wherein said specificity is conferred by the binding of at least one ligand moiety which is localized at the surface of said poxviral particle to an anti-ligand molecule localized at the surface of said target cells, wherein:

~~wherein the said~~ poxviral particle is an intracellular mature virus (IMV);
poxviral particle;

~~wherein~~ said at least one ligand moiety is a polypeptide and is fused to a poxviral polypeptide localized at the surface of said IMV poxviral particle so as to produce a chimeric polypeptide;

~~and wherein~~ said poxviral polypeptide localized at the surface of said IMV poxviral particle is an expression product of the A27L gene.

2. (Original) The poxviral particle of claim 1, wherein said poxviral particle is a vaccinia virus, canarypox, fowlpox, cowpox, entomopox, monkey pox, swine pox or penguin pox particle.

3. (Currently Amended) The poxviral particle of ~~claim 4~~claim 2, wherein said vaccinia virus is selected from the group consisting of Copenhagen, Wyeth and Ankara modified (MVA) strains.

4. (Canceled).

5. (Currently Amended) The poxviral particle of claim 1, wherein:
said target cells are tumoral cells;
~~and~~ said ligand moiety binds a tumor-specific antigen, and
said tumor-specific antigen comprises a a-cellular protein differentially or
~~overexpressed, wherein the differentially~~ expressed or overexpressed cellular protein
selected from the group consisting of: ~~comprises~~ the receptor for interleukin 2 (IL-2),
GRP (Gastrin Release Peptide), TNF (Tumor Necrosis Factor) receptor, epidermal
growth factor receptors, Fas receptor, CD40 receptor, CD30 receptor, CD27
receptor, OX-40, Vv integrins, ~~or~~ receptors for certain angiogenic growth factors, and
~~onto said tumoral cells or a gene product of a cancer-associated virus.~~

6. (Previously Presented) The poxviral particle of claim 1, wherein said ligand moiety is a fragment of an antibody capable of recognizing and binding to the MUC-1 antigen.

7. (Withdrawn) The poxviral particle of claim 6, wherein said heterologous ligand moiety is the scFv fragment of the SM3 monoclonal antibody.

8–9. (Canceled).

10. (Currently Amended) The poxviral particle of ~~claim 25~~claim 1, wherein said ligand moiety is fused to the N-terminus of the expression product of the A27L gene.

11. (Previously Presented) The poxviral particle of claim 1, wherein said ligand moiety further comprises a signal peptide facilitating the insertion of said ligand moiety in the envelope of said poxviral particle.

12. (Previously Presented) The poxviral particle of claim 11, wherein said signal peptide allows the translocation of said ligand moiety in the trans-Golgi network.

13. (Previously Presented) The poxviral particle of claim 12, wherein said signal peptide is a signal peptide of the human trans-Golgi network glycoprotein TGN51.

14. (Previously Presented) The poxviral particle of claim 1, wherein said poxviral particle comprises at least a nucleic acid of interest.

15. (Original) The poxviral particle of claim 14, wherein said nucleic acid of interest is a suicide gene.

16. (Withdrawn) A vector comprising at least one nucleotide sequence encoding a chimeric protein comprising (i) at least an heterologous ligand moiety as defined in claim 1, and (ii) all or part of an homologous viral polypeptide naturally localized at the surface of a poxviral particle.

17. (Withdrawn) The vector of claim 16 wherein said homologous viral polypeptide is selected from the group consisting of the expression products of the A27L, L1R, A14L, A17L, D8L and H3L genes.

18. (Previously Presented) A composition comprising at least one poxviral particle of claim 1 and a pharmaceutically acceptable vehicle.

19. (Withdrawn) A method for the treatment of a human or animal organism by gene therapy comprising administering an effective amount of the poxviral particle according to claim 1 to a human or animal in need of such treatment.

20. (Withdrawn) A method for the purification of a poxviral particle of claim 1 from a viral preparation containing both said poxviral particle and a wild type poxviral particle, comprising the steps of binding said viral preparation to a solid support coated with an antiligand molecule capable of binding said heterologous ligand moiety and recovering said poxviral particle.

21. (Withdrawn) The method according to claim 20, wherein said binding step is performed by surface plasmon resonance on a dextran support.
22. (Withdrawn) The method according to claim 20, further comprising the step of infecting a permissive cell with said recovered poxviral particle.
23. (Withdrawn) The method according to claim 22, wherein said infection step is performed in the presence of EDTA.
24. (Currently Amended) The poxviral particle of claim 1, wherein ~~said chimeric polypeptide~~, at least a portion of the surface-exposed poxviral particle expression product of the A27L gene is removed and replaced by said ligand moiety.
25. (Currently Amended) The poxviral particle of claim 1, wherein ~~said chimeric polypeptide~~, said ligand moiety is incorporated in the surface-exposed poxviral expression product of the A27L gene.
26. (New) The poxviral particle of claim 1, wherein said anti-ligand molecule is differentially expressed or overexpressed in said target cells or is a gene product of a cancer-associated virus.